

NATIONAL MARINE FISHERIES SERVICE HABITAT CONSERVATION DIVISION

Essential Fish Habitat (EFH)

What is EFH and what are the implications for coastal development activities?

Habitat Health = Fishery Health/Productivity

In southeast U.S. region, 96% of commercial and 70% of recreational fishery resources depend on estuaries & nearshore marine habitats

From 1981 and 1999, > 1 million acres of coastal wetlands were impacted through COE regulatory program in this region (Mager, 2000)

Value of Fisheries?

In southeast U.S. region-1997:

2.09 billion lbs. of commercial fish and shellfish sold = \$972 million dockside

Estimated 210 million fish caught by 3.92 million recreational fisherman ● \$\$ billion (Mager, 2000)

MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT (MSFCMA)

1996 Amendment

- Describe and identify EFH for each federally-managed fishery (through FMC's)
- Consultation requirements for Federal agencies
- Encourage conservation and enhancement of EFH

MSFCMA EFH Provisions

(Agency Consultation)

- Federal agencies are required to consult with NMFS regarding any activities that may adversely affect* Essential Fish Habitat;

EFH Interim Final Rules (1997)

NMFS Consultation Guidance

50 CFR Part 600

“adverse effect”*

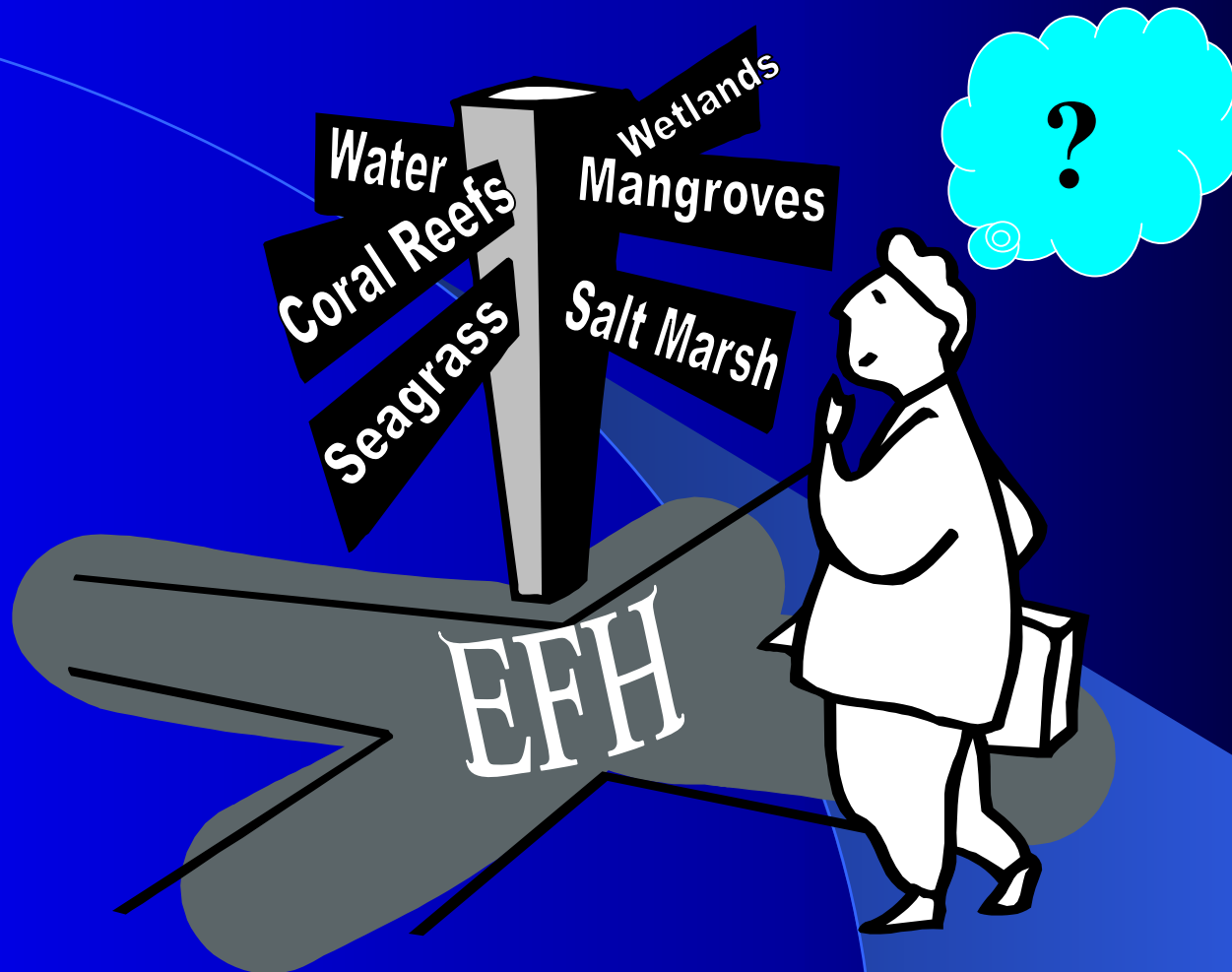
Defined: **“any impact which reduces quality and/or quantity of EFH”**

1. Direct (e.g. contamination or physical disruption)
2. Indirect (e.g. loss of prey, reduction in fecundity)
3. Individual, cumulative, or synergistic

MSFCMA EFH Provisions (Cont.)

- Consultation required for activities proposed to be authorized, funded, or undertaken by Federal Agencies (includes state and Federal waters);
- NMFS (and in some cases, the FMC's) will review and, as appropriate, recommend measures to conserve EFH;

WHAT IS EFH?



NMFS “Jeopardy Game Show” Quiz

Answer: Every known substance
and place in the Universe.

Question: What is EFH, Alex?

EFH DEFINED

MSFCMA - PL 104-297

Sec. 3. Definitions

The term “essential fish habitat” means those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.

EFH Interim Final Rules (1997) further defined EFH as:

NMFS Consultation Guidance
50 CFR Part 600

“**Waters**” include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate;

EFH Defined (Cont.)

“substrate” includes sediment, hard bottom, structures underlying the waters, and associated biological communities;

“necessary” means the habitat required to support a sustainable fishery and the managed species’ contribution to a healthy ecosystem;

“spawning, breeding, feeding, or growth to maturity” covers a species’ full life cycle.

EFH INTERIM FINAL RULES (Cont.)

NMFS Consultation Guidance 50 CFR 600 Subpart K

- EFH Assessment should be prepared and action agency should request consultation with NMFS;
- When appropriate, the NMFS is required to develop EFH conservation recommendations for the activity:
may include measures to avoid, minimize, mitigate, or offset adverse effects on EFH.

EFH INTERIM FINAL RULES (Cont.)

NMFS Consultation Guidance 50 CFR 600 Subpart K

- Action agency must respond to NMFS and Council (if applicable) in writing, within 30 days (interim response is acceptable) and at least 10 days prior to final action;
- A higher level review of local disagreements may be requested by the NMFS.

EFH INTERIM FINAL RULES (Cont.)

- In addition to EFH, the FMP's should also identify Habitat Areas of Particular Concern (HAPC).

One or more of the following criteria must be met:

1. Provide important ecological functions; 2. be sensitive to human-induced environmental degradation; 3. be rare; and, 4. development activities must represent a current or potential stress for the habitat.

EFH AMENDMENT CONTENTS

(Generic EFH Amendment-1998)

EFH addressed generically for the combined management plans
of each Council

- Describe Federally-managed fisheries and their essential habitat;
- Identify Habitat Areas of Particular Concern (HAPC);
- Describe threats to EFH;
- Identify EFH conservation measures.

Fishery Management Plans



South Atlantic FMC EFH Amendment

EFH Categories:

Wetlands Mangroves
Coral & Live Bottoms
Seagrass Oyster reefs
Intertidal & Mud Flats
Sargassum
Estuarine & Marine Water
Column

HAPC Categories:

Biscayne & FL Bays
Marathon Hump
Oculina Bank
FL Keys NMS
Coral & Hard Bottoms
Mangrove Seagrass
Blake Plateau
Worm Reefs

GOMEX FMC EFH Amendment

EFH Categories:

Wetlands Mangroves
Coral & Live Bottoms
Seagrass
Shell Reefs
Algal Flats
Non-vegetated Bottoms
Estuarine & Marine Water
Column

HAPC Categories:

FL Middle Grounds
FL Keys NMS
Dry Tortugas
Apalachicola NERR
Rookery Bay NERR
Weeks Bay NERR (AL)
Flower Gardens (TX)
Grand Bay (MS)

Caribbean FMC EFH Amendment

EFH Categories:

Seagrass Mangroves
Coral & Live Bottoms
Salt Marsh/Ponds
Algal Plains Mud Flats
Non-vegetated Bottoms
Marine Water Column
Sandy Beaches

HAPC Categories:

Estuaries
Nearshore Reefs
Hard Bottoms
Hind Bank (USVI)

Example of EFH Consultation

A Beach Nourishment Project in South Florida

Proposed Project: 12 miles of beach fill placement, construction of 11 groins, 7 borrow areas comprising 250 acres, and approximately 37 acres of nearshore hard bottom impacts.

Example of EFH Consultation

EFH consultation required?*

Yes, meets “adverse effects” requirement.
Abbreviated or expanded consultation?

Expanded, due to substantial adverse effects.

*Action agency is required to make this determination.

Example of EFH Consultation

EFH Assessment prepared



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graph TD; A[EFH Assessment prepared] --> B[Assessment must include: 1. Description of proposed action; 2. Analysis of effects on EFH, managed species, and associated life history stages; 3. Agency's views regarding the effects of the action; 4. Proposed mitigation, if applicable; Additional information may be required (e.g. literature review, site inspections, alternative analysis).];
```

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 2. Analysis of effects on EFH, managed species, and associated life history stages;
 3. Agency's views regarding the effects of the action;
 4. Proposed mitigation, if applicable;
- Additional information may be required (e.g. literature review, site inspections, alternative analysis).

Example of EFH Consultation

Consideration of Impacts



```
graph TD; A[Consideration of Impacts] --> B[Direct: e.g. burial of near shore hard bottom reefs, including worm reefs and hard corals; potential mechanical impacts to reefs adjacent to borrow areas; impacts to macroinvertebrate communities at borrow areas and nearshore habitats];
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Example of EFH Consultation

Consideration of Impacts



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graph TD; A[Consideration of Impacts] --> B[Indirect: e.g. turbidity, siltation, and sedimentation effects on nearshore reefs, reefs adjacent to borrow areas; effects of groin construction on downdrift of sand and turtle movement; effects on spawning, larval fish recruitment and prey availability];
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Example of EFH Consultation

Consideration of Impacts

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graph TD; A[Consideration of Impacts] --> B[Cumulative: e.g. elevated turbidity, siltation, and sedimentation during and after construction; effects on spawning, larval/juvenile recruitment and prey availability; effects of large-scale and repeated beach renourishment projects at a local and regional level.];
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Example of EFH Consultation

Consideration of Impacts



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graph TD; A[Consideration of Impacts] --> B[Synergistic: e.g. multiple stressors on benthic communities potentially effecting growth, disease susceptibility, and coral bleaching events; elevated seawater temperature and sea level rise.];
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Example of EFH Consultation

Action agency requests consultation and review of EFH Assessment

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graph TD; A["Action agency requests consultation and review of EFH Assessment"] --> B["NMFS and FMC reviews assessment and provides EFH Conservation Recommendations"]; B --> C["1. Project should not be issued, as proposed.  
2. 500-foot buffer zone around borrow areas.  
3. Plan for avoiding/minimizing impacts to hard bottom and coral reef habitats.  
4. Plan to fully compensate for all unavoidable impacts."];
```

NMFS and FMC reviews assessment and provides EFH Conservation Recommendations

1. Project should not be issued, as proposed.
2. 500-foot buffer zone around borrow areas.
3. Plan for avoiding/minimizing impacts to hard bottom and coral reef habitats.
4. Plan to fully compensate for all unavoidable impacts.

Example of EFH Consultation




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graph TD; A["Action agency must respond in writing to EFH CR's from NMFS and FMC within 30 days"] --> B["Action agency incorporates several EFH CR's, but does not agree to all"]
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Action agency must respond in writing to EFH CR's from NMFS and FMC within 30 days

Action agency incorporates several EFH CR's,
but does not agree to all

Example of EFH Consultation

Action agency must explain its reasons for not following all CR's, include scientific rationale, and measures to offset adverse effects



NMFS Assistant Administrator may request meeting with the head of the action agency to further discuss the project

FWS' role in EFH

- For actions it undertakes, FWS has a responsibility to consult under MSFMCA for actions that may adversely effect EFH;
- FWS can identify activities that may threaten EFH through regulatory review processes and other environmental documents, like the Coordination Act Report (CAR);
- Include EFH language and an EFH section in CAR's;

FWS' role in EFH

- FWS can assist NMFS and FMC's in identifying EFH and HAPC categories for new FMP's;
- FWS can assist NMFS and FMC's in assessing existing EFH and HAPC categories during review of EFH amendments

Summary

- The 1996 amendments to the MSFCMA set forth a new mandate to identify and protect important marine and anadromous fishery habitat;
- Effective EFH consultation process is critical in ensuring that Federal actions are consistent with MSFCMA goals;

Summary

- Conservation recommendations provided by NMFS to protect EFH are advisory, and not proscriptive.
- However, EFH represents a significant step forward in the conservation of fishery habitat by legal recognition of fish habitat as an important factor in planning coastal zone management projects.

